

[gw22-e0713]

ASSOCIATION BETWEEN ADMISSION FASTING PLASMA GLUCOSE AND CONTRAST-INDUCED NEPHROPATHY IN ELDERLY ACUTE MYOCARDIAL INFARCTION PATIENTS UNDERGOING PERCUTANEOUS CORONARY INTERVENTION

Yang Shiwei¹, Zhou Yujie¹, Nie Xiaomin¹, Liu Yuyang¹, Hu Dayi², Wang Jianlong¹, Guo Yonghe¹, Yang Qing¹ ¹Beijing Anzhen Hospital Affiliated to Capital Medical University, Beijing, China; ²Peoples Hospital Affiliated To Peking University, Beijing, China

10.1136/heartjnl-2011-300867.478

Background Despite numerous prior studies have established the association between admission randomised glucose levels and poor outcomes in patients with acute myocardial infarction (AMI), less is known regarding the correlation between the initial fasting plasma glucose (FPG) and contrast-induced nephropathy (CIN), especially in elderly AMI patients undergoing percutaneous coronary intervention (PCI).

Objective The aim of this study was to assess the association between the initial FPG levels on admission and CIN in elderly patients with AMI.

Methods From April 2004 to October 2006, 881 elderly patients (age ≥ 65 years) diagnosed with AMI undergoing PCI were enrolled in the Beijing Elderly Acute Myocardial Infarction Study (BEAMIS) consecutively. According to admission FPG levels, patients were categorised into four groups: hypoglycaemia group (N=187, 21.2%), FPG ≤ 5 mmol/l; euglycemia group (N=412, 46.8%), FPG >5 to 7 mmol/l; mild hyperglycemia group (N=128, 14.5%), FPG >7 to 9 mmol/l; and severe hyperglycemia group (N=154, 17.5%), FPG >9 mmol/l. The primary end point was CIN, which was defined as an increase in serum creatinine $>25\%$ from baseline in the first 72 h.

Results A total of 125 (14.2%) patients developed CIN. Patients with severe hyperglycemia had a onefold higher incidence of CIN than those with mild hyperglycemia (29.9% vs 14.1%, $p=0.02$), twofold higher incidence of CIN than those with euglycemia (29.9% vs 10.7%, $p<0.001$) and hypoglycemia (29.9% vs 9.1%, $p<0.001$). Hyperglycemia was an independent predictor of CIN.

Conclusions In AMI patients undergoing PCI, hyperglycemia is associated with an increased risk for CIN.